SIEMENS

PATENT

Attorney Docket No. 2001P13794WOUS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Inventor:	D. Fischer, et al.	)	Group Art Unit:	2121
		)		
Serial No.:	10/763,786	)	Examiner:	Chang, Sunray
		)		
Filed:	01/23/2004	)	Confirmation No.:	7919

Title: PROCESS CONTROL SYSTEM WITH A CHARGING FUNCTION

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APPELLANT'S BRIEF UNDER 37 CFR 41.37

Sir:

This brief is in furtherance of the Notice of Appeal filed herewith and in response to the final rejection in this application mailed on 28 May 2008.

1. REAL PARTY IN INTEREST - 37 CFR 41.37(c)(1)(i)

The real party in interest in this Appeal is the assignee of the present application, Siemens Aktiengesellschaft.

2. RELATED APPEALS AND INTERFERENCES - 37 CFR 41.37(c)(1)(ii)

There is no other appeal, interference or judicial proceeding that is related to or that will directly affect, or that will be directly affected by, or that will have a bearing on the Board's decision in this Appeal.

3. STATUS OF CLAIMS - 37 CFR 41.37(c)(1)(iii)

Claims 1 – 14 are pending in the application. No claims have been withdrawn or cancelled. All of the claims 1 – 14 have been finally rejected and are the subject of this appeal. A copy of the claims is attached hereto in the Claims Appendix. Appellant respectfully appeals the final rejection of claims 1 – 14.

4. STATUS OF AMENDMENTS - 37 CFR 41.37(c)(1)(iv)

No amendments have been filed subsequent to the final rejection presented in the Office Action mailed 22 February 2008.

5. SUMMARY OF THE CLAIMED SUBJECT MATTER- 37 CFR 41.37(c)(1)(v)

In the past customers have paid a price for the supply and installation of process control systems (page 1, lines 14-16) - normally a purchase price at the time of delivery which covers both hardware and software (page 1, lines 34-37). According to the invention, a process control system can be adapted flexibly to meet the customer's requirements while reducing high investment costs, especially the costs of software components and license payments. See page 2, lines 5-10.

According to one embodiment, a payment figure (W) may be based on actual use, such that a processing unit (10) determines the payment figure (W) from operations (8) running in the process control system. The customer can be equipped with a specific software program which on one hand allows him to execute particular functions but on the other hand also obliges him to

pay the corresponding "dynamic" usage-dependent payment figure that arises. The customer pays based on actual use. See page 2, lines 15-27.

Generally, the present invention provides a process control system and a method for determining a payment figure in a process control system. Such a process control system can be flexibly adapted to a customer's requirements and reduce investment costs, especially costs of process control software and associated license fees. With reference to the subject matter of the two independent claims, two exemplary embodiments of the invention are now illustrated in more detail.

With reference to Figures 1 and 2, according to **independent claim 1**, such a process control system (5) [page 9, line 1] includes a processor unit (10) [page 9, line 4] adapted to determine a payment figure (W) [page 9, line 5] from operations (7) [page 9, line 6] running in the process control system (5) regarding the creation or removal of a process control function (8) [page 11, lines 13-19] or regarding a user activity (7) or regarding an execution of an automation function(7) [page 9, lines 7-18]. For example, a control algorithm may be run in order to regulate a component 45 such as a motor or a pump. See page 11, lines 15-19.

Also with reference to Figures 1 and 2, according to **independent claim 14**, a method for determining a payment figure (W) in a process control system (5) [page 9, lines 1-5] includes the steps of providing a processor unit (10) adapted to record the creation and/or removal of a process control function (8) and an execution of an automation function (8, 40) [page 10, lines 30-34]; providing a device (computer 15) adapted to record a user activity (7); and determining a payment figure (W) by the processor unit (10) using recorded data (55 or 60) of the preceding steps.

6. GROUNDS OF REJECTION TO BE REVIEWED UPON APPEAL - 37 CFR 41.37(c)(1)(vi)

1. Whether claims 1-13 are unpatentable under Section 103 based on U.S. Patent No. 6,282,454 (Papadopoulos) in view of U.S. Patent No. 5,103,392 (Mori).

2. Whether independent claim 14 is unpatentable under Section 103 based on U.S. Patent No. 6,282,454 (Papadopoulos) in view of U.S. Patent No. 5,103,392 (Mori) further in view of U.S. Patent No. 7,035,898 (Baker).

7. ARGUMENT 37 CFR 41.37(c)(1)(vii)

APPELLANTS TRAVERSE ALL REJECTIONS BASED IN WHOLE OR PART ON PAPADOPOULOS ALONE OR IN COMBINATION WITH THE MORI REFERENCE.

Patentability of Each Claim is to be Separately Considered

Appellants urge that patentability of each claim should be separately considered. All of the claims are separately argued. General argument, based on deficiencies in the rejection of independent claim 1 under Section 103 demonstrates patentability of all dependent claims. However, none of the rejected claims stand or fall together because each dependent claim further defines a unique combination that patentably distinguishes over the art of record. For this reason, the Board is requested to consider each argument presented with regard to each dependent claim. Argument demonstrating patentability of each dependent claim is presented under subheadings identifying each claim by number.

7A. REJECTION OF THE INDEPENDENT CLAIM 1, AND CLAIMS 2-13 WHICH DEPEND THEREFROM UNDER SECTION 103 IS IN ERROR.

The Appellants traverse all of the claim rejections under 35 USC 103 because the combination of Papadopoulos in view of Mori fails to disclose the combinations recited in the independent claims. The rejection of claim 1 under section 103 must be withdrawn because it is based on an error.

Claim 1, rejected over Papadopoulos in view of Mori, is directed to a process control system requiring, among other features:

> "a processor unit adapted to determine a payment figure from operations running in the process control system ..."

The Examiner has conceded that the Papadopoulos reference does not teach a processor adapted to determine a payment figure. The Examiner has attempted to find prior art which discloses a processor unit adapted to determine a payment figure in order to form a combination

under Section 103. To this end, the rejection incorrectly asserts that the Mori reference "teaches a processor adapted to determine a payment figure ..." See page 2 of the Final Office Action.

Error in the rejection is apparently due to a misunderstanding or an incorrect interpretation that was applied to the claim language "adapted to determine" as evidenced at page 10 of the Final Office Action. See Paragraph numbered 8 therein which characterizes the Mori reference as including a program storage unit which can be "adapted to" be used by proprietors to determine the payment figure based on the "system" stored information.

That which the Examiner has referred to in Mori is not what is claimed. With the Examiner's added explanation at page 10, Appealnats understand that the Examiner misinterprets the claim language "adapted to determine" as though it might mean that subject matter not being positively claimed might determine the payment figure, i.e., outside the scope of the claim. See Paragraphs 9 and 10 at pages 10-11 of the Final Office Action which state in part:

> *"the processor is only "adapted to" determine a payment figure, in fact, "proprietors obtain information provided by a computer for charging the user the exact amount of use of his program" can be read as "a processor unit adapted to determine a payment figure ..."*

Applicants strongly disagree because this is entirely incorrect. The Examiner's argument misinterprets the claim language **as though it reads** that the processor is *merely* adapted to operate with proprietors who perform the clamed function, e.g., obtain information provided by a computer and perform a charging function separate and apart from that computer for charging the user. This is not consistent with the plain meaning of claim 1.

There is no basis for interpreting the language

"processor unit adapted to determine a payment figure"

as anything other than a processor unit which is configured to perform the function of determining a payment figure. This is not the same as a situation wherein operators merely acquire information from a computer and then use that information separate and apart from the computer to determine a user charge, i.e., without use of the computer functions.

Furthermore, there is no basis to contend that the claimed processor unit is not required to perform the very function ascribed to it. There is no support for arguing that the quoted claim language in its entirety can be read upon anything outside of a processor unit, i.e., a processor

cannot be read upon operators such that it would be considered "adapted to operate with" external activities to perform the very function which applicants require that the processor unit itself must perform.

Applicants acknowledge that in certain contexts the phrase "adapted to" might mean that a claim element is adapted to operate in conjunction with (or be coupled to) a second component, which is not claimed, e.g., wherein the second component is relied upon to perform an express function. However, in claim 1, this is not the case. Rather, the claim requires that the claim element **itself** (i.e., the processor unit) be adapted, e.g., configured, to perform the recited function.

The Mori reference is concerned with providing history of use so that proprietors "can charge for the exact amount of use ..." (see col. 1, lines 15 – 18), but the Mori reference does not disclose or suggest a system to "determine" a payment figure. Providing a **history of use** is not a disclosure or suggestion of providing a payment figure.

To support Appellants' continued traversal of the rejection on the basis of this deficiency, reference is made to col. 3, lines 29-31 of Mori which state that "the proprietor can obtain information necessary for charging the user the exact amount of use of his program." So, at best, the cited passage implies that the proprietor is provided with information enabling the proprietor to calculate a payment figure. The passage does not suggest that the system of Mori would determine a payment figure.

See, also, col. 3, lines 63-68 which clarify what is meant at col. 3, lines 44-46 concerning "storing data of the charge payable by the user ..." That is, lines 65-68 clearly indicate that an account portion 53 is connected to an input/output portion 132 so that information of the charge payable by the user can be stored in the use history 131, e.g., a predetermined limit on the amount of cumulative charges of a user.

In this regard it is important to note that the proprietors are **not** part of the system disclosed by Mori. Rather, as indicated at col. 4, lines 20-30, the proprietors "register their programs ... [and] obtain accounts of the use of their programs ..." The description at col. 3, lines 63-68 and the input/output lines of figure 2 may imply that it is possible for the proprietors to input information into the history storage 13 such as a predetermined limit on the amount of cumulative charges of a user. Given this explanation, there is no support for contending that the

system of Mori would determine a payment figure. For similar or identical reasons, the rejection of claim 14 is also deficient.

Based on the foregoing it cannot be concluded that the system of Mori determines **any** payment figure. Rather, the system only provides information on history of use to the proprietors who are then enabled to charge appropriately for the use. The art rejection has failed to address the express language of the claims and find the claimed subject matter in the prior art. To sustain a rejection under Section 103 it is necessary to find every claimed feature in the same detail as recited in the claims. The deficiencies present in Mori reference preclude such a finding and the rejection must therefore be withdrawn. For these reasons, the reliance upon Mori in combination with Papadopoulos is insufficient basis to reject claim 1 and each claim which depends therefrom.

In summary, the rejection of claim 1 relies on an unduly broad interpretation of the clamed subject matter based on the Examiner's misunderstanding or misapplication of the phrase "adapted to determine" as illustrated by the statement at paragraph 10 of the Final Office Action. An incorrect interpretation has been given to the phrase "adapted to" in order to argue that applicants' processor is only adapted to determine a payment figure. In fact, being adapted to perform this function means that the processor is configured accordingly. This claim requirement cannot be read upon prior art knowledge that "proprietors" might obtain the underlying information provided by a computer in order to determine a payment figure separate and apart from the computer. It is only the applicants who teach

> "a processor unit adapted to determine a payment figure from operations running in the process control system ..."

Allowance of claim 1 is requested.

7B. REJECTION OF INDEPENDENT CLAIM 14, UNDER SECTION 103 IS IN ERROR.

Claim 14, rejected over Papadopoulos in view of Mori '392, and in further view of Baker, is directed to a method for determining a payment figure in a process control system. The method includes:

"providing a processor unit adapted to record the creation and/or removal of a process control function and an execution of an automation function;
providing a device adapted to record a user activity; and
determining a payment figure by the processor unit using recorded data of the preceding steps."

The Examiner has conceded that the Papadopoulos reference does not teach the claimed feature of determining a payment figure (see page 7 of the final office action), but the rejection of claim 14 asserts that the Mori reference "teaches a method for determining a payment figure ..."

A combination made on this basis cannot stand because the Examiner has incorrectly equated (see page 7 of the final office action) the claimed subject matter with:

"[a system for storing the history of use of marketable programs (software) such as marketable computer programs. By storage of the history of use, proprietors of marketable programs can charge for the exact amount of use of software. Specifically, the system allows proprietors to obtain information on the exact state of use of software by a specific user and charge appropriately for that use, Col. 1, lines 14 - 23]"

Error in the rejection is apparently due to an incorrect interpretation that was applied to the claim language "determining a payment figure by the processor unit using recorded data of the preceding steps" because the prior art citation clearly does not disclose this subject matter. And at page 8 of the final office action, again citing Col. 1, lines 14 - 23, the Examiner expressly and incorrectly equates this claim language with

"allow[ing] proprietors to obtain information on the exact state of use of software by a specific user and charge appropriately for that use ... for the purpose of making the use of such software more attractive to users ..."

This is not and cannot be the same as what is claimed since claim 14 requires that the payment figure is determined **by the processor unit** and the cited passage only discloses that the proprietors "*obtain*" information **to** charge for that use.

What the Examiner has referred to in the prior art is not that which is claimed. Now, however, the Examiner has provided added explanation (see paragraph numbered 8 at page 10 of the final office action) which expressly discounts the claim language ["The examiner cannot see

the necessity, in the claims, using only the processor to determine a payment figure"] even though the claim recites

"determining a payment figure by the processor unit using recorded data [Emphasis Added]"

Also in the same paragraph numbered 8 at page 10 of the final office action the Examiner imposes discretion for which there is no precedent by also stating:

> further, "processor unit" can be treated as a proprietor using a system; "**determine**" can be treated as "non-calculating related process", for example, puilled from the database.

To the extent the above excerpt from page 8 can be understood it is clearly a stretch to replace an autofunction (determining a payment figure by the processor unit) simply because the Examiner cannot see the necessity of using the processor. This is what the claim requires and this is therefore a necessary feature of the invention which the Examiner cannot find in the prior art.

The rejection is not consistent with the plain meaning of claim 14. This is not the same as a situation wherein operators (proprietors) merely acquire information from a computer and then use that information separate and apart from the computer to determine a user charge, i.e., without use of the computer functions. Furthermore, there is no basis to contend that the claimed use of the processor unit is not required to perform the very function ascribed to it. There is no support for arguing that the quoted claim language in its entirety can be read upon anything outside of an operation performed on a processor unit, i.e., it cannot be read upon operators to perform the very function which applicants require that the processor unit itself must perform.

The Mori reference is concerned with providing history of use so that proprietors "can charge for the exact amount of use ..." (see col. 1, lines 15 – 18), but the reference does not disclose or suggest use of a processor unit to "determine" a payment figure. Providing a **history of use** is not a disclosure or suggestion of providing a payment figure.

To support applicants' continued traversal of the rejection on the basis of this deficiency, reference is made to col. 3, lines 29-31 of Mori which state that "the proprietor can obtain

information necessary for charging the user the exact amount of use of his program." So, at best, the cited passage implies that the proprietor is provided with information enabling the proprietor to calculate a payment figure. The passage does not suggest that the system of Mori would determine a payment figure.

Also, see again Col. 3, lines 63-68 which clarify what is meant at col. 3, lines 44-46 concerning "storing data of the charge payable by the user ..." That is, lines 65-68 clearly indicate that an account portion 53 is connected to an input/output portion 132 so that information of the charge payable by the user can be stored in the use history 131, e.g., a predetermined limit on the amount of cumulative charges of a user.

In this regard it is important to again note that the proprietors are **not** part of the system disclosed by Mori. Rather, as indicated at col. 4, lines 20-30, the proprietors "register their programs ... [and] obtain accounts of the use of their programs ..." The description at col. 3, lines 63-68 and the input/output lines of figure 2 may imply that it is possible for the proprietors to input information into the history storage 13 such as a predetermined limit on the amount of cumulative charges of a user. Given this explanation, there is no support for contending that the system of Mori would determine a payment figure.

In summary, the art rejection of claim 14 has failed to address the express language of the claims and find the claimed subject matter in the prior art. To sustain a rejection under Section 103 it is necessary to find every claimed feature in the same detail as recited in the claims. The deficiencies present in the Mori reference preclude such a finding. It is not seen how the Baker reference is useful to reject the claims and the Baker reference certainly does not compensate for deficiencies in the Papadopoulos and Mori references. The rejection must therefore be withdrawn. Reliance upon Mori in combination with Papadopoulos and Baker is insufficient basis to reject claim 14.

In summary, the rejection of claim 14 relies on an unduly loose interpretation of the clamed subject matter based on the Examiner's misunderstanding or misapplication of the claim language as illustrated by the statements at paragraph 8 (page 10) of the Final Office Action. The requirements of claim 14 cannot be read upon prior art knowledge that "proprietors" might obtain the underlying information provided by a computer in order to determine a payment figure separate and apart from the computer. It is only the applicants who teach or suggest what is claimed. Allowance of claim 14 is requested.

7C. REJECTION OF CLAIMS 2-13, WHICH EACH DEPEND FROM CLAIM 1, UNDER SECTION 103 IS IN ERROR.

The Appellants traverse all of the rejections of the dependent claims under 35 USC 103 because the combination of Papadopoulos in view of Mori fails to disclose each feature recited in each of the dependent claims. Each of the claims depending from Claim 1 further distinguishes over the prior art. Neither the Mori reference nor any other art of record can compensate for the deficiencies present in the Papdopoulos reference.

7C(1). Claim 2 is Patentably Distinct over the combination of Papdopoulos in view of Mori.

Claim 2 further distinguishes the invention over the art of record because it includes a combination requiring, as an additional feature, a "process control computer" and "a client computer ... wherein at least a part of the operations running in the process control system run on the process control computer." None of the art of record teaches or suggests the combination of Claim 2. For example, although the Papdopoulos reference illustrates a web browser, the claimed system is different in that the claimed system includes the internet.

7C(2). Claim 3 is Patentably Distinct over the combination of Papdopoulos in view of Mori.

Claim 3 further distinguishes the invention over the art of record because the combination further includes "at least one field device for automation of at least one system component, wherein at least a part of the operations running in the process control system run on the field device." The invention is not simply the features recited in the dependent claim, but a combination of features which combination is absent from the prior art. Contrary to argument present in the rejection, the I/O device 40 of Papadopoulos is not disclosed as a "field device for automation of at least one system component ..." Removal of the rejection is required.

7C(3). Claim 4 is Patentably Distinct over the combination of Papdopoulos in view of Mori.

Claim 4 which depends from claim 2 further distinguishes over the prior art, requiring, among other features, that "the process control computer comprises a Web server and the client computer comprises an Internet browser so that the client computer can influence the operations running in the process control computer." The invention is not simply the features recited in dependent claim 4, but a combination of features including what is recited in claims 1 and 2, which combination is absent from the prior art. None of the art of record teaches or suggests this combination.

7C(4). Claim 5 is Patentably Distinct over the combination of Papdopoulos in view of Mori.

Claim 5, which depends from claim 4, further distinguishes the invention over the art of record because the further components of claim five "comprise field devices for monitoring and control of components of a technical system that are connected by radio communication and/or by a fixed link to the process control computer, wherein the further operations also comprise those operations that are executed in the field devices." The invention is not simply the features recited in dependent claim 5, but a combination of features including what is recited in claims 1, 2 and 4, which combination is absent from the prior art. None of the art of record teaches or suggests this combination.

7C(5). Claim 6 is Patentably Distinct over the Combination of Papdopoulos in view of Mori.

Claim 6 patentably distinguishes the invention over the art of record because this combination requires, as an additional feature, that the "communication between the components of the process control system is based on the TCP/IP transmission protocol (TCP/IP)." The invention is not simply the features recited in dependent claim 6, but a combination of features

including what is recited in the claims from which it depends. None of the art of record teaches or suggests this combination of Claim 6.

7C(6). Claims 7 and 9-13 are each Patentably Distinct over the combination of Papdopoulos in view of Mori.

Each of the claims 7 and 9-13 further distinguishes over the prior art, requiring that "the payment figure is a service fee to be paid by the user of the process control system to an Application Service Provider." The rejection asserts Col. 1, lines 14-23 of Mori disclose this subject matter, but each of these claims is directed to a different combination which is non-obvious and which further distinguishes at least on the bases described above with regard to claim 1. None of the art of record teaches or suggests the combinations set forth in these claims.

7C(7). Claim 8 is Patentably Distinct over the Combination of Papdopoulos in view of Mori.

Independent Claim 8 is patentably distinct, requiring, for example, that "the process control computer comprises a Web server and the client computer comprises an Internet browser so that the client computer can influence the operations running in the process control computer via the Internet. Claim 8 is directed to a combination which is non-obvious and which further distinguishes at least on the bases described above with regard to claim 1. None of the art of record teaches or suggests the combination.

7D. ALL OF THE CLAIMS SHOULD BE PASSED TO ISSUANCE.

Based on the foregoing, the Final Rejection as applied to every one of the claims is in error. Every one of the claims stands up to all of the art of record. Reversal is therefore requested so the claims may be passed to issuance.

8. APPENDICES

An appendix containing a copy of the claims involved in this appeal is provided herewith. No evidence appendix or related proceedings appendix is provided because no such evidence or related proceeding is applicable to this appeal.

Respectfully submitted,

Dated: 7/23/08

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APPENDIX OF CLAIMS ON APPEAL

1. A process control system, comprising:

a processor unit adapted to determine a payment figure from operations running in the process control system regarding the creation or removal of a process control function or regarding a user activity or regarding an execution of an automation function.

2. A process control system according to Claim 1, further comprising:

a process control computer;

a client computer; and

the Internet, wherein at least a part of the operations running in the process control system run on the process control computer.

3. A process control system according to Claim 2, further comprising:
at least one field device for automation of at least one system component, wherein at least a part of the operations running in the process control system run on the field device.

4. A process control system according to Claim 2, wherein the process control computer comprises a Web server and the client computer comprises an Internet browser so that the client computer can influence the operations running in the process control computer via the Internet, wherein the operations can also include operations by which further operations are initiated in further components of the process control system.

5. A process control system according to Claim 4, wherein the further components comprise field devices for monitoring and control of components of a technical system that are connected by radio communication and/or by a fixed link to the process control computer, wherein the further operations also comprise those operations that are executed in the field devices.

6. A process control system according to Claim 5, wherein communication between the components of the process control system is based on the TCP/IP transmission protocol (TCP/IP).

7. A process control system according to Claim 1, wherein the payment figure is a service fee to be paid by the user of the process control system to an Application Service Provider.

8. A process control system according to Claim 3, wherein the process control computer comprises a Web server and the client computer comprises an Internet browser so that the client computer can influence the operations running in the process control computer via the Internet, wherein the operations can also include operations by which further operations are initiated in further components of the process control system.

9. A process control system according to Claim 2, wherein the payment figure is a service fee to be paid by the user of the process control system to an Application Service Provider.

10. A process control system according to Claim 3, wherein the payment figure is a service fee to be paid by the user of the process control system to an Application Service Provider.

11. A process control system according to Claim 4, wherein the payment figure is a service fee to be paid by the user of the process control system to an Application Service Provider.

12. A process control system according to Claim 5, wherein the payment figure is a service fee to be paid by the user of the process control system to an Application Service Provider.

13. A process control system according to Claim 6, wherein the payment figure is a service fee to be paid by the user of the process control system to an Application Service Provider.

14. A method for determining a payment figure in a process control system, comprising:

providing a processor unit adapted to record the creation and/or removal of a process control function and an execution of an automation function;

providing a device adapted to record a user activity; and

determining a payment figure by the processor unit using recorded data of the preceding steps.

EVIDENCE APPENDIX - 37 CFR 41.37(c) (1) (ix)

None

RELATED PROCEEDINGS APPENDIX - 37 CFR 41.37(c) (1) (x)

None